

WHAT IS CLAIMED IS:

1.     An electronic control unit for performing operation processing of an input signal and outputting a control signal,

5     comprising:

        an input terminal to which the input signal is input;

        an operation processing section which executes the operation processing;

10     an input processing circuit which executes predetermined processing for the input signal and supplies the processed signal to the operation processing section; and

        a processing switch section which switches the predetermined processing of the input processing circuit.

15     2.     The electronic control unit according to claim 1, wherein the processing switch section stores processing, which the input processing circuit is able to execute, as input processing information and switches the processing of the input processing circuit based on the input processing information.

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3.     The electronic control unit according to claim 1, wherein the processing switch section switches the processing of the input processing circuit based on an operation result output by the operation processing section.

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4. The electronic control unit according to claim 1,  
wherein the processing switch section switches the processing  
of the input processing circuit in a time-sharing manner.

5 5. The electronic control unit according to claim 1,  
wherein the input processing circuit includes:

a plurality of processing circuits different in  
processing for the input signal; and

10 an input switch which inputs the input signal to  
one of the plurality of processing circuits.

6. The electronic control unit according to claim 5,  
wherein:

15 the input processing circuit includes a plurality of  
processing circuits for executing the same processing for the  
input signal; and

when an anomaly occurs in the processing circuit, which  
is executing the processing, the processing switch section  
switches the processing circuit to another processing circuit  
20 for executing the same processing.

7. The electronic control unit according to claim 1,  
wherein:

the input processing circuit executes the predetermined  
25 processing for the input signal by a programmable IC; and

the processing switch section rewrites the programmable IC to switch the predetermined processing.

8. The electronic control unit according to claim 1,  
5 wherein the input processing circuit includes:  
an analog/digital converter which converts the input signal into a digital signal; and  
a logical IC which executes the predetermined processing for the digital signal converted by the  
10 analog/digital converter; and  
the processing switch section rewrites processing stored in the logical IC to switch the predetermined processing.

9. The electronic control unit according to claim 1,  
15 wherein:  
the input terminal is a plurality of input terminals;  
and  
the input processing circuit switches a connection relationship between the plurality of input terminals and the  
20 operation processing section.

10. The electronic control unit according to claim 9,  
wherein the input processing circuit executes separate processing for input signals input from the plurality of input  
25 terminals, respectively.

11. The electronic control unit according to claim 1,  
further comprising an output processing circuit which executes  
second predetermined processing for an operation result output  
5 by the operation processing section and outputs a processing  
result as the control signal, wherein:

the processing switch section switches the second  
predetermined processing of the output processing circuit.

10 12. The electronic control unit according to claim 11,  
wherein the second predetermined processing is processing for  
giving a predetermined drive current to the operation result.

13. The electronic control unit according to claim 12,  
15 wherein:

the output processing circuit includes a plurality of  
driver circuits; and

the output processing circuit uses the plurality of driver  
circuits in combination to generate the drive current given  
20 to the operation result.

14. The electronic control unit according to claim 13,  
further comprising a plurality of output terminals, wherein:

the output processing circuit includes a dedicated driver  
25 circuit group assigned to the plurality of output terminals;

and

the output processing circuit selects at least one driver circuit used to generate the drive current from the dedicated driver circuit group.

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15. The electronic control unit according to claim 13 further comprising a plurality of output terminals, wherein:

the output processing circuit includes a shared driver circuit group shared among the plurality of output terminals;

10 and

the output processing circuit selects at least one driver circuit used to generate the drive current from the shared driver circuit group.

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16. The electronic control unit according to claim 1 further comprising:

a switch management section which determines whether or not the switching of the processing is permitted, when the processing switch section switches the predetermined processing.

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17. The electronic control unit according to claim 16, wherein the switch management section sets request authority for the content of the switching.

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18. The electronic control unit according to claim 17, wherein if an identification signal satisfying the request authority is input in the switching, the switch management section permits the switching of the processing.

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19. The electronic control unit according to claim 17, wherein if a switch request for the switching of the processing is input and data indicating the switch request contains authority information satisfying the request authority, the  
10 switch management section permits the switching requested by the switch request.

20. The electronic control unit according to claim 16, wherein:

15 the switch management section includes a position information acquisition section which acquires position information; and

the switch management section determines whether or not the switching is permitted based on the position information  
20 acquired by the position information acquisition section.

21. Anelectroniccontrol unit for performing operation processing of an input signal and outputting a control signal, comprising:

25 an input terminal to which the input signal is input;

an operation processing section which executes the operation processing;

an output processing circuit which executes predetermined processing for an operation result output by the operation processing section and outputs a processing result as the control signal; and

a processing switch section which switches the predetermined processing of the output processing circuit.

10        22.    An electronic control unit for performing operation processing of a plurality of input signals and outputting a control signal, comprising:

an input terminal to which the input signal is input;

an operation processing section which executes the operation processing;

an input processing circuit including a plurality of processing circuits which execute predetermined processing for each of the plurality of input signals and supply the processed signals to the operation processing section, and to which each of the plurality of input signals are able to be input in common; and

selection means which selects at least one of the plurality of processing circuits for the input signals and inputs the input signals to the selected processing circuit.

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23. The electronic control unit according to claim 22, wherein the selection means selects a plurality of processing circuits based on the input signal.

5 24. The electronic control unit according to claim 22, wherein:

the selection means includes a switch section which switches connection between the input signal and the processing circuit; and

10 the selection means controls the switching of the switch section to select at least one processing circuit.

25. Anelectronic control unit for performing operation processing of an input signal and outputting a control signal, comprising:

15 an input terminal to which the input signal is input; an operation processing section which executes the operation processing; and

20 an input processing circuit which executes predetermined processing for the input signal and supplies the processed signal to the operation processing section, wherein:

the input processing circuit switches the predetermined processing based on an processing change request received from an external.

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26. An electronic drive unit for executing predetermined processing for an input signal, giving a predetermined drive current to a processing result, and outputting the result, the electronic drive unit comprising:

5 a processing switch section which switches at least either of the predetermined processing and a value of the predetermined drive current given to the processing result.